



Hazardous Substances
Technical Liaisons

OFFICE OF RESEARCH AND DEVELOPMENT HAZARDOUS SUBSTANCES TECHNICAL LIAISON REGION 9 NEWSLETTER Fall 2004, Edition 29

Welcome to the Fall 2004 HSTL newsletter! Elections and the Red Sox in the baseball playoffs? Are we in for an "October Surprise" or two? Anything can happen, right? And, as always, a lot is happening in the waste cleanup world these days. There are a number of new tools and technologies out there. Check out the short descriptions in the "National News" section below. There are a number of interesting conferences throughout the US and also in Europe (if ya got travel money!). And I've also highlighted many new or improved website resources and many new documents.

My quarterly reminder: ORD continues to offer free technical support to waste staff (Superfund, RCRA and Brownfields). Give me a call if you need aerial photography support, documents reviewed, opinions rendered on new cleanup technologies, or elections decided (only kidding on the last one...).

By the time you read this, the election for the White House may be decided.....I say "may" as I ponder 4 years ago. Can the Florida situation repeat??? Well, we may not have a flawless election system, but there will be another edition of the HSTL Newsletter in January! I guarantee it.

Mike Gill
EPA Region 9
ORD Hazardous Substances Technical Liaison
415-972-3054

Fall 2004 Edition of the Region 9 HSTL Newsletter:

National News

New Tools and Technologies

Superfund Basic Research Program (SBRP) - TCLP Studies

Local News

EPA and USACE Assist East Palo Alto Residents with Pesticide Issues

Datebook - Upcoming Events

Web Pages

Recent Documents, Databases, etc.

Serious Scientists Gather 'Round...

NATIONAL NEWS

New Tools and Technologies

New Environmental Technology Verification (ETV) Program verifications:

FOUR IMMUNOASSAY TEST KITS VERIFIED

<http://www.epa.gov/etv/verifications/vcenter1-31.html>

ADSORPTIVE MEDIA TECHNOLOGY FOR ARSENIC REMOVAL VERIFIED

<http://www.epa.gov/etv/verifications/vcenter2-14.html>

DRINKING WATER DIATOMACEOUS EARTH FILTER VERIFIED

<http://www.epa.gov/etv/verifications/vcenter2-15.html>

THREE POINT OF USE DRINKING WATER TREATMENT SYSTEMS VERIFIED

<http://www.epa.gov/etv/verifications/verification-index.html>

ANIMAL WASTE TREATMENT SOLIDS SEPARATOR VERIFIED

<http://www.epa.gov/etv/verifications/vcenter9-4.html>

PARAFORMALDEHYDE DECONTAMINATION TECHNOLOGY VERIFIED

<http://www.epa.gov/etv/verifications/vcenter11-2.html>

VENTILATION MEDIA AIR FILTERS VERIFIED

<http://www.epa.gov/etv/verifications/vcenter10-1.html>

STORM WATER SOURCE-AREA TREATMENT DEVICE VERIFIED

<http://www.epa.gov/etv/verifications/vcenter9-9.html>

New Toxicity Tool from ORD / NHEERL: DSSTox Public Toxicity Database Network

<http://www.epa.gov/nheerl/dsstox/>

(From an EPA Press Release)

The Distributed Structure-Searchable Toxicity (DSSTox) Database Network provides a community forum for publishing standard format, structure-annotated chemical toxicity data files for open public access. Project goals are to:

- Encourage use of DSSTox Standard Chemical Structure Fields and SDF standard format files for publishing chemical toxicity databases;
- Coordinate with outside public efforts to encourage chemical structure annotation, data standardization, and open public access to toxicity databases;
- Involve the user community in the effort to migrate more public toxicity data into the DSSTox standardized format for publishing;
- Provide full, open access to toxicity data files for structure-analog searching and for facilitating development of improved models for predicting toxicity based on chemical structure.

A slide presentation was given on DSSTox in September and is archived at the following EPA intranet address:

<http://intranet.ord.epa.gov:9876/development/RCT/PestToxRCT.nsf/1d97341def1e57d185256a5c006ee712/11f590329225762f85256f0e0049b55f?OpenDocument>

Taking Research Results to the Real-World Level

From NRMRL Newsletter (8/4/04)

Where do laboratory research findings go when they are considered ready for real-world testing? For many research projects, the next step is the EPA Test and Evaluation (T&E) Facility located in Cincinnati, Ohio. In this unique facility, scientists can draw on the expertise of engineers, technicians, and skilled craftsmen to design, develop and fabricate pilot-scale projects and programs. Built by EPA in 1979, the facility offers a 24,000 square-foot high bay area, with two 5-ton bridge cranes, for housing oversize projects. It also provides 14,000 square feet of newly renovated laboratories, a machine shop, and a greenhouse for soil studies. A 10,000-gallon stainless-steel storage tank is automatically monitored for spill and leak protection. Sixteen work stations offer connections to wastewater flows from the nearby Mill Creek municipal wastewater treatment plant. The facility is fully Resource Conservation and Recovery Act (RCRA)-permitted, allowing it to accept, treat and store multiple categories of hazardous wastes under the RCRA.

The T&E Facility was built by EPA expressly for the evaluation of hazardous, municipal and industrial waste treatment technologies. Since then, the two-story structure has housed a variety of chemical, physical and biological experimental experiments. These include a simulated water

distribution system to examine changes in water pipe lines; membrane technologies for recovery of volatile organic compounds; composting technologies for treatment of contaminated soils, and many others. T&E engineers and technicians have also collaborated in the design and development of remote water-quality and biomonitoring systems. While NRMRL manages the facility and has been its primary user, the T&E's capabilities are also available to qualified researchers from the public and private sectors. Information about potential collaborative projects may be obtained by contacting NRMRL's Public Information Office at the number shown below.

Here is a brief sampling of recent projects conducted at the T&E Facility.

- Evaluation of a Combined Oxidation Process to Remove MTBE from Drinking Water
- Small-System Drinking Water Evaluation
- Simulated Water Distribution System Demonstration

For more info, contact: Patricia Schultz, NRMRL Public Affairs (schultz.patricia@epa.gov).

Protecting Children's Health: An Alternative Technology for Reducing Risk from Lead in Soil

Edited from NRMRL Newsletter (9/7/04)

It is well known that children are harmed by exposure to lead in their environments. Programs to reduce lead in paint, gasoline, and drinking water have greatly reduced childhood exposures to those sources, but lead in soil remains a challenging health risk. This is particularly true for children in urban environments where aging buildings and concentrations of industry can result in soil-lead levels up to 100 times higher than those found in agricultural soils. Traditional methods for treatment of these contaminated soils include excavation, disposal and replacement with clean soil—all very disruptive and expensive. US EPA soil scientists, in cooperation with other researchers, have developed an innovative treatment that converts the harmful chemical form of soil-lead into an environmentally stable and biologically inert mineral, and does it on site with minimum disruption and at lower cost.

One way to reduce the risk of childhood exposure to lead is to change its chemical form. To alter the toxicity, EPA researchers added phosphorous, a common component of fertilizers, as a reactive material. The addition of phosphorous to lead has a very rapid two-fold effect: 1) it sequesters the lead in soil, and 2) it significantly reduces the bioavailability of lead, meaning that if a child ingests contaminated soil treated in this manner, the lead will pass through the child's body without harmful effects.

The EPA risk management research, conducted over several years at a lead-contaminated Superfund site in Missouri, successfully immobilized lead in soil, reducing its bioavailability as much as 72 percent over a 32-month period. Costs of this innovative treatment—for which EPA holds a patent—were estimated at thousands of dollars per acre foot (an amount covering one acre to a depth of one foot), a very favorable contrast to the million dollars per acre foot typical of traditional remove-and-treat technologies. The results suggest that this approach has great merit for cost-effective in-place immobilization of lead in contaminated soils and wastes.

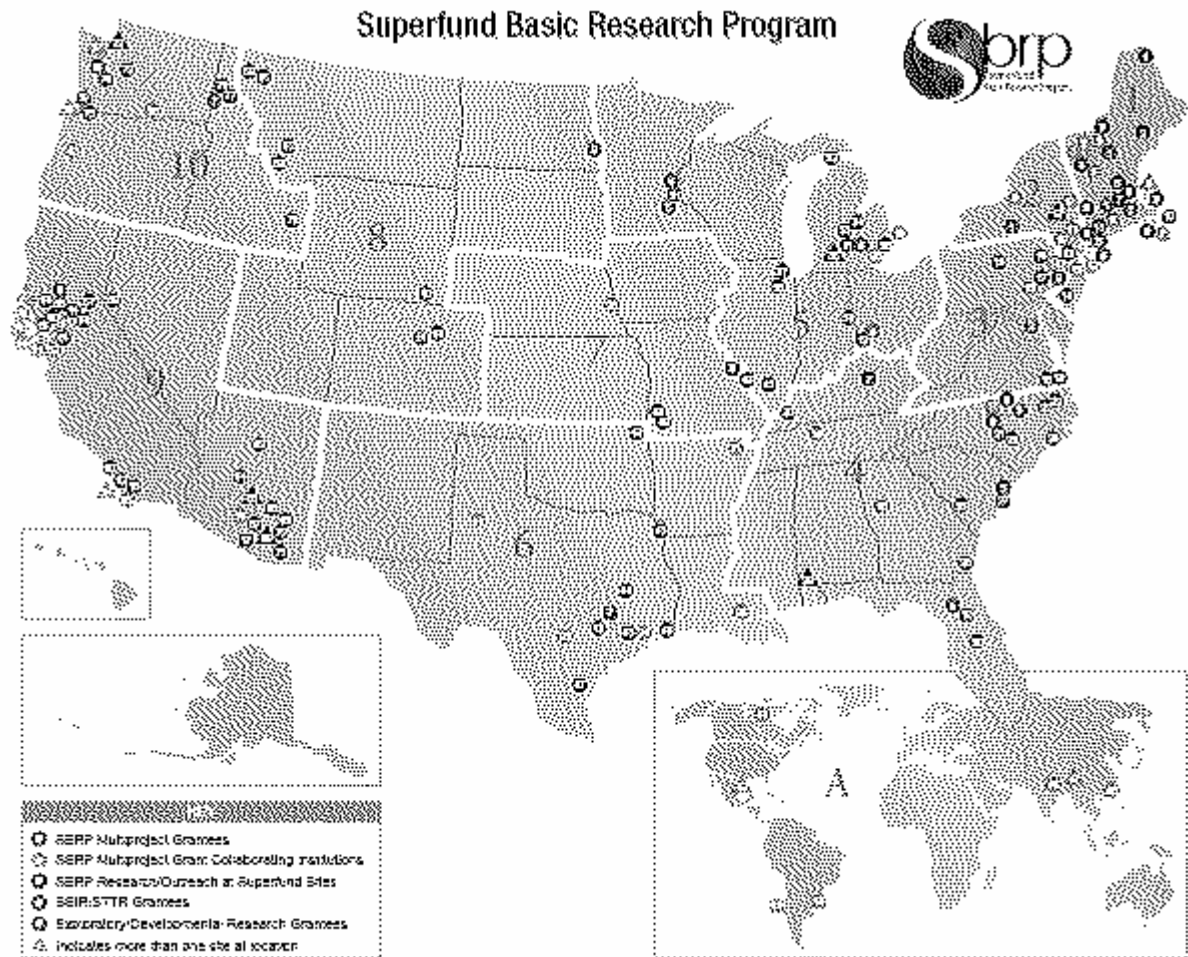
Complete information about this project is available in the American Chemical Society's publication, *Environmental Science & Technology*, January 1, 2004, pp.19A-24A. Contact: Patricia Schultz, Office of Public Affairs (schultz.patricia@epa.gov).

Superfund Basic Research Program (SBRP) - TCLP Studies

(From the SBRP Program)

The SBRP has funded research/outreach activities at over 100 hazardous waste sites. This research is describe in detail on their webpage, (<http://www-apps.niehs.nih.gov/sbrp/>) and the locations are shown on the map below. One of the recently completed research topics has been published in *Environmental Science and Technology* and is titled: "The TCLP Underestimates Leaching from Solid Residuals under Landfill Conditions". It is the work of Dr. Wendell Ela of the University of Arizona and is currently available on-line at: <http://pubs.acs.org/cgi-bin/download.pl?es030707w/J6cB>.

Briefly, this publication reports that the Toxicity Characteristic Leaching Procedure (TCLP), the standard test for determining what is hazardous waste, will not detect a potential contamination problem. Dr. Ela has determined that arsenic-bearing solid waste residuals from the treatment of arsenic-contaminated drinking water tend to leach in alkaline environments, such as those in mature landfills. The TCLP test will yield false negative results, that is, the residuals will "pass" the TCLP test, and unintended arsenic contamination of the groundwater under sanitary landfills may result. In his paper, Dr. Ela evaluates alternative analytic methods to improve the accuracy of the test procedure. Although not discussed in this paper, his research group is also working to identify the range of other toxic-bearing residuals for which the TCLP may be inappropriate and means of stabilizing these residuals to mitigate leaching.



LOCAL NEWS

EPA and USACE Assist East Palo Alto Residents with Pesticide Issues (From Tech Trends, July, 2004)

The City of East Palo Alto, CA, is helping local homeowners and non-profit organizations to cost-effectively address pesticide contamination in an area formerly used for agriculture. Suspected or known contamination from the past use of pesticides has slowed the area's redevelopment, forcing homeowners to sell below market rates or attempt to finance the high

cost of field investigation and cleanup. The USACE is helping the City apply Triad at five land parcels, which will serve as a model for characterizing other parcels in the area. The U.S. EPA is providing additional support to the City through a Brownfields Program technical grant. A team of decision makers from the City, regulatory agencies, and environmental consulting firms set the primary project goals early in the effort: (1) to cost effectively redevelop the area; and (2) to ensure that any significant levels of soil contamination were identified and removed. The team also agreed to collect sufficient data for the onsite management of soil containing low concentrations of pesticides.

For the complete article, go to:

<http://www.clu-in.org/products/newsletters/tnandt/view.cfm?issue=0704.cfm#7>

For more information, contact Bradley Call, USACE, at 916-557-6649 or bradley.a.call@usace.army.mil, or Lily Lee, U.S. EPA/Region 9, at 650-853-3122 or lee.lily@epa.gov.

DATEBOOK - UPCOMING EVENTS

This section of the newsletter is an attempt to present both EPA and non-EPA sponsored environmental technology related courses and conferences. But being a quarterly publication, it is impossible for this newsletter to always be up-to-date. For the most pertinent information on upcoming EPA courses, see <http://www.trainex.org>. These events are listed chronologically.

Many of the entries in these newsletters are from TIO's "TechDirect" emails (thank you Jeff Heimerman!). TechDirect prefers to concentrate mainly on new documents and the internet live events. However, they do support an area on the CLU-IN webpage where announcement of conferences and courses can be regularly posted. Sponsors can input information on their events at <http://clu-in.org/courses>. Likewise, the page has an area for upcoming events that might be of interest. It allows users to search events by location, topic, time period, etc.

ITRC Internet Based Training

These are typically 1-2 hour online courses where the participant follows a webpage presentation, while listening on the phone. Check - <http://www.itrcweb.org> or <http://www.clu-in.org/studio/seminar.cfm> for times and registration.

10/19 - Munitions Response Historical Record Review (MRHRR)

10/21 - Monitoring DNAPL Source Zone Remedies - Strategies for Monitoring the Performance of DNAPL Source Zone Remedies

11/4 - Constructed Treatment Wetlands

11/9 - Design, Installation and Monitoring of Alternative Final Landfill Covers

11/16 - Radiation Risk Assessment: Updates and Tools

11/18 - What is Remediation Process Optimization and How Can It Help Me Identify Opportunities for Enhanced and More Efficient Site Remediation?

NOTE: All dates/times are subject to change – check <http://www.itrcweb.org> for the most up-to-date information.

Arsenic in Groundwater: *Impacts on a Critical Resource*

October 18-19, 2004, Radisson Hotel, Fresno, CA

Program Agenda - <http://www.grac.org/AsAgenda>

Registration Forms - <http://www.grac.org/AsReg>

Fall TSP Meeting

October 18-21, 2004

Sacramento, CA

<http://www.trainex.org/offeringlist.cfm?courseid=362&all=yes>

The 21st Annual Conference on Soils, Sediments and Water: “Expediting and Economizing Cleanups”

(includes a 2-day Modeling Vapor Attenuation Workshop)

October 18-21, 2004

University of Massachusetts at Amherst

<http://www.umasssoils.com>

The Investors Circle 2004 National Conference: Venture Capital for a Sustainable Future

October 24-26, 2004

Cambridge, MA

<http://www.investorscircle.net/Conference2004.html>

Central & Eastern European Environmental Health Conference: International Health Sciences Solving Common Problems

Prague, Czech Republic

Oct. 24-27, 2004

For more information or to receive future mailings, contact Ms. Nancy White at: 979-845-0203

CEEHC04@cvm.tamu.edu

<http://tti.tamu.edu/conferences/ceehc/>

"Third International Conference on Oxidation and Reduction Technologies for In-Situ Treatment of Soil and Groundwater (ORTs-3)"

October 24-28, 2004

San Diego, California

<http://www.redoxtech.com>

Internet Seminar - EPA Operation and Maintenance in Superfund Part I

October 25, 2004

<http://clu-in.org/studio/seminar.cfm>

Low Cost Remediation Strategies for Contaminated Soil and Ground Water

October 25-26, 2004

Dublin, OH

<http://info.ngwa.org/servicecenter/Meetings/MeetingDetail.cfm?meetingid=546&feecatuid=1630&datecatuid=943>

Internet Seminar - EPA Operation and Maintenance in Superfund Part II

October 26, 2004

<http://clu-in.org/studio/seminar.cfm>

RTDF Permeable Reactive Barriers (PRB) Meeting

October 26-27, 2004

Albuquerque, NM

<http://www.rtdf.org/public/permbarr/>

Addressing Uncertainty and Managing Risk at Contaminated Sediment Sites

October 26-28, 2004

St. Louis, MO

<http://www.smwg.org>

Interstate Technology Regulatory Council 2004 Fall Meeting

October 26-29, 2004

Albuquerque, NM

<http://www.itrcweb.org/common/default.asp>

Natural Attenuation for Remediation of Contaminated Sites

October 27-29, 2004

Reno, NV

<http://info.ngwa.org/servicecenter/Meetings/MeetingDetail.cfm?meetingid=547&feecatuid=1633&datecatuid=944>

EPA STAR Human Health Workshop: Human Health Research Symposium
October 28-29, 2004
Philadelphia, PA
<http://es.epa.gov/ncer/events/>

Joint Meeting of the Canadian Society of Soil Science and the Soil Science Society of America
Oct. 31 - Nov. 4, 2004
Seattle, Washington
<http://www.asa-cssa-sssa.org/anmeet/>

SBRP Annual Meeting
November 3-4, 2004
Seattle, Washington
<http://www-apps.niehs.nih.gov/sbrp/2/annualconf/index.html>

U.S. EPA HSRC/NERL Workshop on Superfund Exposure Research
November 4-5, 2004
Las Vegas, NV
Contact Mitch Lasat at 202-343-9705 for more information

2nd European Conference on MTBE
November 4-5, 2004
Barcelona, Spain
<http://www.iiqab.csic.es/mtbe>

Environmental Forensics: Theory, Applications and Case Studies
November 9-10, 2004
Charleston, SC
<http://www.environmentalforensics.org/workshops.htm>

Pretreatment Training: Introduction and Intermediate Topics
November 9-11, 2004
Reno, NV
http://cfpub.epa.gov/npdes/courses.cfm?program_id=0&outreach_id=176&o_type=1

The International Society of Technical Environmental Professionals Inc.
(INSTEP) 2004 Annual Technical Conference, Exhibition and Workshops
November 8-12, 2004
Orlando, FL
<http://www.instep.ws>

Pretreatment Training: Intermediate and Advanced Topics
November 10-12, 2004
Reno, NV
http://cfpub.epa.gov/npdes/courses.cfm?program_id=0&outreach_id=21&o_type=1

Society of Environmental Toxicology and Chemistry (SETAC) 25th Annual Meeting
November 14-18, 2004
Portland, OR
<http://www.setac.org/portland.html>

The Remediation Conference
November 15-16, 2004
New Orleans, LA
<http://www.ngwa.org/e/conf/0411155010.shtml>

US EPA Pit Lakes 2004 Conference
November 16-18, 2004
Reno, NV
<http://www.epa.gov/ttnrmrl/pitlakes.htm>

Annual SERDP/ESTCP Partners in Environmental Technology Technical Symposium and Workshop
November 30-December 2, 2004
Washington, DC
<http://www.serdp.org/symposiums/symposiums.html>

EPA Regional Science Workshop on Animal Feeding Operations
December 6-9, 2004
College Park, Maryland
For additional information and future announcements, please contact Ron Landy at
landy.ronald@epa.gov

EPA/USACE Superfund Remediation Conference (SRC)

December 7-9, 2004
Lake Buena Vista, FL
<http://hq.environmental.usace.army.mil/sf2004src/Hotel/hotel.html>

2004 NGWA Ground Water Conference and Exposition
December 12-15, 2004
Las Vegas, NV
<http://www.ngwa.org/e/expo/0412126010.shtml>

The 15th Annual International Workshop on Alternatives to Toxic Materials in Industrial Processes
January 10-13, 2005
Phoenix, AZ
<http://www.exchangemonitor.com/calendar.htm>

The Transport of Sediments and Contaminants in Surface Waters
January 16-21, 2005
Fess Parker's DoubleTree Resort
Santa Barbara, California
For further information, contact Wilbert Lick at 805-964-2088 or willy@engineering.ucsb.edu

The International Conference on Environmental Science and Technology sponsored by the American Academy of Sciences
January 23-26, 2005
New Orleans, LA
<http://www.aasci.org/conference/index.html>

The Third International Battelle Conference on Remediation of Contaminated Sediments
January 24-27, 2005
New Orleans, LA
<http://www.battelle.org/environment/er/conferences/sedimentscon/default.stm>

15TH WEST COAST CONFERENCE ON SOILS, SEDIMENTS AND WATER
March 14-17, 2005
San Diego, California
<http://www.aehs.com/conferences/westcoast/>

ATSWMO Brownfields Symposium
March 15-17, 2004

New Orleans, LA
Contact: Jennifer Wilbur (202) 566-2756

Engineering Sustainability 2005
April 10-12 2005
Pittsburgh, PA
<http://www.engr.pitt.edu/msi/conference.html>

International Phytotechnologies Conference
April 20-22, 2005
Atlanta Georgia
<http://www.aboutremediation.com/Events/Upcoming.asp?option=up> (scroll down to April 2005)

National Corrective Action Conference
May 3-4, 2005
Denver, CO
Contact: Bill Rothenmeyer (303-312-6045)

The 2005 International Oil Spill Conference
May 15-19, 2005
Miami, FL
<http://www.iosc.org/>

Annual World Water & Environmental Congress: "Impacts of Climate Change"
May 15-19, 2005
Anchorage, Alaska
<http://www.asce.org/conferences/ewri2005>

8th International Symposium on In-Situ and On-Site Bioremediation
June 6-9, 2005
Baltimore, Maryland
<http://www.battelle.org/environment/er/conferences/biosymp/default.stm>

International conference ModelCARE2005:
"Calibration and Reliability in Groundwater Modelling, From Uncertainty to Decision Making"
June 6-9, 2005
The Hague (Scheveningen), Netherlands
<http://typhoon.mines.edu/events/modcare.htm>

Watershed Management Conference, "Managing Watersheds for Human and Natural Impacts:
July 19-22, 2005

Engineering, Ecological, and Economic Challenges."

<http://www.asce.org/conferences/watershedmanagement2005/>

10th Annual International Symposium on the Interactions between Sediment and Water and the
International Association for Sediment Water Science

August 28-September 2, 2005

Lake Bled, Slovenia

<http://www.wsc.monash.edu.au/iasws/2005symposium.htm>

ENVIRONMENTAL EXPOSURE & HEALTH 2005

October 5-7, 2005

Atlanta, Georgia

<http://www.wessex.ac.uk/conferences/2005/eeh05/index.html>

WEB PAGES

New Web Site Showcases International Innovative Environmental Solutions

(From Enesta Jones, 202-564-7873)

A new EPA Web site offers environmental policies and best practices from countries around the world including Germany, the Netherlands, Sweden and Australia. The online global library provides links to journals, databases, guidelines, programs and case studies involving innovations in air, toxics, waste and water issues, as well as multi-media approaches, such as Environmental Management Systems, sustainable transport, smart growth and industrial ecology. It provides examples of state and local partnerships with other countries and regions that have resulted in creative environmental solutions in the United States such as: constructed wetlands to treat wastewater; green buildings and renewable energy to address climate and air pollution; industrial ecology to support pollution prevention and brownfields revitalization; a list of fellowships for group and individual exchanges; and a number of resources on evaluating

international initiatives. The library will help state and local governments, federal agencies, non-governmental organizations, as well as other countries learn from these experiments.

For more information, visit the website: <http://www.epa.gov/innovation/international>

New and Improved FRTR Remediation Optimization Information

The Federal Remediation Technologies Roundtable (FRTR) Remediation Optimization web site was recently improved. A compilation of 73 FRTR Optimization case studies are available for the first time. The reports contain information on the optimization of remedial systems and/or long-term monitoring programs. Visitors can search these reports by remedial technology, optimization method, and other criteria. New additions to the site also include a list of commonly-used acronyms and terms and a Meetings and Conferences page. Proceedings of the Site Optimization Conference held June 15-17 in Dallas, TX will be posted here later this month. The FRTR Remediation Optimization page was also enhanced with file format and size information as well as a site navigation pathway that will guide visitors as they browse the site. To access the FRTR Remediation Optimization website, see: <http://www.frtr.gov/optimization> .

Cost and Performance Information on Cleanup Technologies Available

The Federal Remediation Technologies Roundtable (FRTR) recently compiled 117 new remediation case study and technology assessment reports documenting the cost, performance, and lessons learned in implementing a wide range of hazardous waste cleanup technologies in the field, ranging from large-scale demonstrations to full-scale applications. With this addition, a total of 632 reports are now available in four areas - 361 cost and performance case study reports describing the use of remediation technologies; 144 reports describing the use of site characterization and monitoring technologies; 73 case studies describing long-term monitoring/optimization of remediation technologies; and 54 reports describing the assessments of remediation technologies at hazardous waste sites. These reports and other related FRTR information can be accessed at <http://www.frtr.gov> .

Triad Resource Center

This website was developed by the member agencies of the Federal Remediation Technologies Roundtable to provide one-stop-shopping for Triad information, case studies, training opportunities, and news. The site provides information describing how the Triad approach restructures projects from technical and project management perspectives. It includes overview information, project management, Triad case studies, detailed reference resources and frequently asked questions. See <http://www.triadcentral.org> .

REACHIT Streamlined!

In August of 2004, the new EPA Remediation and Characterization Innovative Technology (REACH IT) database web site was released with major upgrades to the search options such that finding characterization or remediation technologies for a particular problem set is now much more streamlined. Additionally, there has been a thorough effort to update the information associated with the more than 450 technology vendors and 700 plus technologies in REACHIT. New features, in addition to the streamlined navigation, include the following: One-click access to searches on topics of interest to the remediation community (the Spotlight section), the most commonly searched technologies and contaminants, and customized user-created queries; faster searches for specific vendors, technology trade names, and sites with alphabetical indexes; one-click downloading of search results in a spreadsheet format; and a summary of EPA REACH IT data in the Information Snapshots section. See <http://www.epareachit.org> .

SEDIMENT SITES WITH SUBSTANTIAL CONTAMINATION LISTED ON WEB

The EPA has assembled a web-based listing of Superfund sites for which: 1) the agency has signed a record of decision or action memorandum for sediment cleanup; and 2) the remedy involves more than 10,000 cubic yards of sediments to be dredged or excavated or more than five acres to be capped or monitored for natural recovery. The listings are organized by region, and most have links to other information on the web about remediation activities undertaken at the site.

<http://www.epa.gov/superfund/resources/sediment/sites.htm>

Center for Subsurface Modeling Support (CSMoS)

This website is operated by the U.S. EPA National Risk Management Research Laboratory. The Center for Subsurface Modeling Support (CSMoS) provides public domain ground-water and vadose zone modeling software and services to public agencies and private companies throughout the nation. The primary aims of CSMoS are to provide direct technical support to EPA and State decision makers in subsurface model applications and to manage and support the ground-water models and databases resulting from the research at NRMRL. This research encompasses the transport and fate of contaminants in the subsurface, the development of methodologies for protection and restoration of ground-water quality, and the evaluation of subsurface remedial technologies. As a result, a major focus of CSMoS entails coordinating the use of models for risk assessment, site characterization, remedial activities, wellhead protection, and Geographic Information Systems (GIS) application. For more information, see:

<http://www.epa.gov/ada/csamos.html>

CLU-IN Optimization Information Center

The EPA Technology Innovation Program has created a new website for information on EPA optimization efforts related to improving the design, long-term management, and closeout of

remediation systems. The focus of the website is on optimization evaluations, technical fact sheets, demonstrations, and outreach efforts with which EPA has direct involvement but the website also provides links to other state and federal agency optimization resources. A sample of the information accessible on the new website includes: more than 35 third-party optimization evaluations reports (called Remediation System Evaluations) that were conducted at Superfund, Resource Conservation and Recovery Act, and Leaking Underground Storage Tank sites across the United States; summary and lessons learned documents from the conducting the optimization evaluations; technical fact sheets and guidance documents for operating remediation systems; reports from EPA-sponsored demonstration projects of innovative optimization strategies such as mathematical tools for optimizing well placement and statistical tools for optimizing long-term groundwater monitoring programs; and training courses, workshops, and seminars on optimization methods. For more information see <http://clu-in.org/optimization> .

Center for Public Environmental Oversight - Federal Facilities Cleanup Websites (from Lenny Siegel)

Recently, CPEO inaugurated a new feature on their web site, a page that provides links to other web sites that focus on federal facilities cleanup. Over the last few years, a great deal of information of federal environmental restoration programs has become available on the Internet, but there has been no central listing of available sites. Now it's available on their "Links" page. See: <http://www.cpeo.org/links/linksindex.html>

There is a general National/Regional links page, and there are pages that link to over 120 site-specific web sites, sponsored by both government and non-government organizations. One has the choice of listing those pages alphabetically by facility, by state, or by primary federal Responsible Party.

RECENT DOCUMENTS, DATABASES, ETC.

These entries are arranged alphabetically. Thanks to TechDirect, Tech Trends, NRMRL News, the ETV Program, DOE, DoD and others for posting their latest documents. And remember, many of these are available in paper format in the Region 9 library. Use your local library.....

Abstracts of Remediation Case Studies, Volume 8

(EPA 542-R-04-012)
(Federal Remediation Technologies Roundtable [FRTR])
(June 2004, 109 pages) (3.6MB)
<http://www.clu-in.org/download/frtr/epa542r04012.pdf>

Action Plan for Ground Water Remedy Optimization
<http://www.epa.gov/superfund/action/postconstruction/optimize.htm>

Assessing Ground-Water Vulnerability to Contamination:
Providing Scientifically Defensible Information for Decision Makers
(USGS Circular 1224)
(Fall 2003, 33 pages)
http://water.usgs.gov/pubs/circ/2002/circ1224/pdf/circ1224_ver1.01.pdf

Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos
at Superfund Sites
(OSWER No. 9345.4-05)
(August 2004, 4 pages)
<http://www.epa.gov/superfund/programs/risk/pdf/memo722b.pdf>

ESTCP Cost and Performance Report: Applications of Synthetic Aperture Radar to UXO
Delineation
(UXO-0126, ESTCP Program)
(May 2004, 39 pages)
<http://www.estcp.org/documents/techdocs/UX-0126.pdf>

Facilitating Brownfields Transactions Using Triad and Environmental Insurance
(This paper appeared in the journal "Remediation" and was posted on CLU-IN with permission)
(Spring 2003, 19 pages) (132KB)
http://clu-in.org/download/remed/remediation_preprint_triad-insurance.pdf

FACTSHEET RELEASED ON HUDSON PCB SITE SEDIMENT SAMPLING
http://www.epa.gov/udson/sed_sampling_fs07_04.htm

Guidance for Obtaining Representative Laboratory Analytical Subsamples from Particulate
Laboratory Samples
(EPA 600-R-03-027)
(November 2003, 156 pages) (2.9MB)
http://clu-in.org/download/char/epa_subsampling_guidance.pdf

Innovative Remediation and Site Characterization Technologies Resources CD-ROM
(EPA 542-C-04-002)

To order a free copy, submit a request at <http://www.epa.gov/ncepi>

Methodology for Estimating Times of Remediation Associated with Monitored Natural Attenuation

(USGS, WRIR 03-4057)

F.H. Chapelle, and others, 2003)

For the software package described in the report, see the following webpage:

<http://sc.water.usgs.gov/publications/pdfs/WRIR-03-4057.pdf>

Nanoscience and Nanotechnologies: Opportunities and Uncertainties

(Royal Society and the Royal Academy of Engineering in the United Kingdom)

(July 2004)

<http://www.nanotec.org.uk/finalReport.htm>

“Nitrate Reduction by Zerovalent Iron: Effects of Formate, Oxalate, Citrate, Chloride, Sulfate, Borate, and Phosphate.”

Su, Chunming and Robert W. Puls. 2004

Environmental Science and Technology, 38(9): 2715-2720.

<http://pubs.acs.org/cgi-bin/article.cgi/esthag/2004/38/i09/pdf/es034650p.pdf>

Performance Monitoring of MNA Remedies for VOCs in Ground Water

(EPA 600-R-04-027)

(April 2004, 92 pages)

<http://www.epa.gov/ada/download/reports/600R04027/600R04027.pdf>

PERIODICAL INAUGURATED ON SUPERFUND MONITORING/MEASUREMENT PROGRAM

(First issue of inSITE, a newsletter on the agency's Superfund Innovative Technology Evaluation (SITE) Monitoring and Measurement Technology (MMT) Verification Program.)

<http://www.epa.gov/ORD/SITE/newsletter/540n04033.htm>

Principles and Practices of Enhanced Anaerobic Bioremediation of Chlorinated Solvents

(Air Force, Navy and the DoD Environmental Security Technology Certification Program [ESTCP])

(August 2004, 457 pages)

<http://www.afcee.brooks.af.mil/products/techtrans/Bioremediation/default.asp>

Risk Assessment Guidance for Superfund (RAGS), Volume I: Human Health Evaluation Manual
(Part E, Supplemental Guidance for Dermal Risk Assessment)
(OSWER No. 9285.7-02 EP)
(July 2004, 181 pages)
<http://www.epa.gov/superfund/programs/risk/ragse/index.htm>

Site Characterization Technologies for DNAPL Investigations
(EPA 542-R-04-017)
(August 2004, 165 pages) (2.9MB)
<http://clu-in.org/download/char/542r04017.pdf>

Strategies for Monitoring the Performance of DNAPL Source Zone Remedies
(ITRC Report DNAPLs-5)
(August 2004, 206 pages)
<http://www.itrcweb.org/DNAPLs-5.pdf>

Technology News and Trends - Issues 13/14

(EPA 542-N-04-004)
(July 2004, 8 pages)
<http://clu-in.org/download/newsletters/tnandt0704.pdf>

(EPA 542-N-04-005)
(September 2004, 6 pages)
<http://clu-in.org/download/newsletters/tnandt0904.pdf>

Serious Scientists Gather 'Round.....

Guo, Z., J.J. Jetter, and J. McBrien. "The Rates of Polycyclic Aromatic Hydrocarbon Emissions from Incense Burning," Bulletin of Environmental Contamination and Toxicology, 72(1):86-193. 2004.
<http://www.springer-ny.com/>

Record 1.

TI: More Data Required

AU: Halford, KJ

JN: Ground Water

PD: 2004

VO: 42

NO: Part4

PG: 477-487

PB: GROUND WATER PUBLISHING COMPANY

IS: 0017-467X

URL: <http://www.ingenta.com/isis/searching/Expand/ingenta?unc=1043280934>

Click on the URL to access the article or to link to other issues of the publication.

Record 4.

TI: The U.S. Congress Needs Advice about Science and Technology

AU:

JN: Environmental Science and Technology

PD: 2004

VO: 38

NO: 16

PG: 306A-312A

PB: ACS AMERICAN CHEMICAL SOCIETY

IS: 0013-936X

PE: AUG 15

URL: <http://www.ingenta.com/isis/searching/Expand/ingenta?unc=1043888897>

Click on the URL to access the article or to link to other issues of the publication.

Disclaimer

This quarterly newsletter publication is meant to be used for information only. It does not represent the opinion of the management of the regional or national offices of EPA, only that of the author. The accuracy of the information contained herein is not guaranteed, only desired. If corrections are necessary, please contact the author. Thanks again to all of my information resources, which include EPA's ORSTI (formerly TIO), ORD (including NRMRL News) and Region 1's CEIT.

Thanks for reading it! Comments and suggestions are appreciated. If you wish to be added to or deleted from this list, please send me an email. (gill.michael@epa.gov)

Newsletter archives can be found on the EPA intranet
site.....<http://intranet.epa.gov/ospintra/cp/hstlnews.htm>

A number of environmental technology web resources can be found here.....<http://www.epa.gov/region09/waste/techlinks/>

Mike Gill
ORD Hazardous Substances Technical Liaison
US EPA Region 9 / SFD-84
75 Hawthorne Street
San Francisco, CA 94105
415-972-3054
415-947-3520 (Fax)
Gill.Michael@epa.gov
